Case Study | Construction

Wacker Neuson

Meeting the needs of the **Construction Site 4.0**

Founded in Dresden, Germany in 1848, Wacker Neuson's focus on innovation and invention has seen it grow to become one of the world's leading manufacturers of construction machinery.

Today, among other things, the product portfolio includes internal and external vibrators for concrete consolidation, vibratory wet screeds for concrete surface finishing, vibratory rammers, pumps and heaters as well as excavators, wheel loaders, telehandlers, skid steer loaders and dumpers within the range of compact construction machines.

With such a diverse range of products, it's no wonder that companies from the construction industry, gardening and landscaping, municipalities and industry, among other sectors, have come to rely on Wacker Neuson's innovative solutions to meet their own business needs.

Innovative solutions

Wacker Neuson's new EW100 10-ton-mobile excavator has been developed in close cooperation with customers, attachment manufacturers and companies across the construction industry. The result? A machine that Wacker Neuson says will shape the Construction Site 4.0 and set new standards.



Customer Wacker Neuson

Location Munich, Germany

Engine model Perkins[®] 904J-E28T Perkins[®] 904J-E36TA

Application Mobile excavator

OEM website wackerneuson.com



Mobile excavator



The EW100 reaches a maximum speed of 40 km/h – perfect for fast job site changes, while the powerful drive hydraulics and working power enables the compact machine to complete work typically undertaken by a 14-ton mobile excavator.

A clear view of the work area is provided by the flattened engine hood, through which the right front tyre is always visible. In addition, the machine is equipped with a rear-view camera.

"The new EW100 sets new standards for the future of mobile excavators," says Andreas Gstöttenbauer, head of product management excavators and dumpers. "The interaction of the machine with the user and the attachments is incomparable and it is ex works already prepared for MIC 4.0 and further evolutions in the digitisation of the construction site."

Attachment management system

One of the highlights of the EW100 says Wacker Neuson is the attachment management system. In combination with the automatic attachment pressure relief and couple- as well as flow-recognition, the excavator brings efficiency to a new level and combines it with the highest operator comfort.

The EW100's AWS (Active Working Signal) – a long red light over the back of the machine, further increases the safety of those working near to the excavator, as it shows the machine's activity while in operation on the jobsite.

A focus on sustainability

The excavator is fitted with an EU Stage V compliant Perkins engine and benefits from an ECO-automatic setting while it is being driven on the road and an ECO-mode with integrated power split, for use while the machine is working on the jobsite.

"Safety, sight and efficiency got improved in a whole new way," explains Andreas Gstöttenbauer. "During the

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development process we focused on our customer and also service needs, feedback and wishes. We wanted to create a machine, made with and for the customers. Durable for the future and sustainable."

And it's Perkins powered

The EW100 mobile excavator comes with a choice of Perkins engines – the 55 kW 904J-E28T or the 904J-E36TA delivering 100 kW. The compact Perkins[®] 904 Series is ideally suited to the EW100, as both the 2.8 and 3.6 litre engines have the same connection and service points – an important consideration for Wacker Neuson.

So too was the regeneration process, which for Perkins engines happens during the standard work cycle, so there's no need for indicator lights and operators don't need to waste valuable time or burn fuel for regeneration without working. Furthermore, no regeneration inhibitor switch is required due to the reduced exhaust temperatures during regeneration, meaning there is no risk for misuse.

Additional reasons for Wacker Neuson selecting the Perkins 904 Series included the compact engine mounted aftertreatment for maximum durability, aftertreatment developed for the product's lifetime and its improved transient load acceptance.

The quiet 904 Series engines complement the low noise and comfortable operating environment Wacker Neuson creates for the operator, while the engine's low fuel consumption and compatibility with the EW100's ECO modes offering, aligns with the company's sustainability targets.

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